

AFSC 2A1X7  
ELECTRONIC WARFARE SYSTEMS  
CAREER FIELD EDUCATION AND TRAINING PLAN

This change to CFETP 2A1X7 June 1997, is effective 1 Sept 99. Compliance with AFI 36-2201 and AFI 36-2101 training policies and documentation is required.

1. Write-in the following changes to the master task list (MTL); there is no need to post the changes in individual training records. Page numbers are taken from the CFETP 2A1X7, June 1997, produced by PDO. CFETPs downloaded from internet web sites may have different page numbers due to printer formatting.

<u>Page</u>	<u>Location</u>	<u>Action</u>
19	Explanations:	Change Note 1 to read: These entries apply to the "POD" course.

<u>Page</u>	<u>STS Item</u>	<u>Column</u>	<u>Action</u>
20	A2.2.1.2	4A(1)	Change "A" to "b"
20	A2.2.4	4A(1)	Change "A" to "a/-"
23	A2.7.8.1	4A(1)	Change "3c" to "3c/2b"
23	A2.7.8.3	4A(1)	Change "A" to "A/-"
24	A2.10.3.1	4A(1)	Change " 3c" to "3c/-"
24	A2.10.3.1	4B(2)	Change "2b" to "B"
24	A2.10.3.2	4B(2)	Change "2b" to "B"
24	A2.10.3.3	4A(1)	Change " 3c" to "3c/-"
24	A2.10.3.3	4B(2)	Change "2b" to "B"
24	A2.10.3.4	4B(2)	Change "2b" to "B"
24	A2.10.3.5	1	Delete (Note 2)
24	A2.10.3.5	4A(1)	Change " 3c" to "3c/2b"
24	A2.10.3.5	4B(2)	Change "2b" to "B"
24	A2.10.3.6	4B(2)	Change "2b" to "B"
25	A2.10.3.7	4B(2)	Change "2b" to "B"
25	A2.10.3.8	4B(2)	Change "2b" to "B"
25	A2.10.3.10	4B(2)	Change "2b" to "B"
25	A2.10.3.11.2	4A(1)	Change "3c" to "3c/2b"
25	A2.10.3.12	4B(2)	Change "2b" to "B"

<b><u>Page</u></b>	<b><u>STS Item</u></b>	<b><u>Column</u></b>	<b><u>Action</u></b>
25	A2.10.3.14	4B(2)	Change “2b” to “B”
25	A2.10.4.1.1	4A(1)	Change “3c” to “3c/2b”
25	A2.10.4.1.4	4A(1)	Change “2b” to “2b/-”
26	A2.11.2.2.2	4A(1)	Change “C” to “C/B”
26	A2.11.2.6.1	1	Delete “(Note 3 & 4)”
26	A2.11.2.6.2	1	Delete “(Note 3 & 4)”
26	A2.11.2.7.1	1	Delete “(Note 3 & 4)”
26	A2.11.2.7.2	1	Delete “(Note 3 & 4)”
27	A2.12.4.1	4A(1)	Change “2b” to “2b/-”
27	A2.12.5.2	4A(1)	Change “3c/b” to “3c/-”
27	A2.12.6.1	4A(1)	Change “3c/b” to “3c/-”
27	A2.12.7	4A(1)	Change “b” to “b/-”
27	A2.12.8.1	4A(1)	Change “2b/b” to “2b/-”
27	A2.12.8.2	4A(1)	Change “2b” to “2b/-”
27	A2.12.8.4	4A(1)	Change “2b/b” to “2b/-”
27	A2.12.9.1	4A(1)	Change “3c/b” to “3c/2b”
27	A2.12.9.2	4A(1)	Change “3c” to “3c/-”
28	A2.12.9.6	4A(1)	Change “-” to “2b/-”
28	A2.12.9.7	4A(1)	Change “-” to “2b/-”
28	A2.12.10.1	4A(1)	Change “2b/b” to “2b”
28	A2.12.10.2	4A(1)	Change “3c” to “3c/-”
28	A2.12.10.4	4A(1)	Change “2b/b” to “2b/-”
28	A2.12.14	4A(1)	Change “2b” to “2b/-”
29	A2.13.6.3	4A(1)	Change “2b/b” to “2b/-”
29	A2.13.6.6	4A(1)	Change “2b/b” to “b/-”
29	A2.13.6.7	4A(1)	Change “2b/b” to “b/-”
29	A2.13.7.3	4A(1)	Change “2b” to “2b/-”
29	A2.13.8.2	4A(1)	Change “2b” to “2b/-”
30	A2.13.10.3	4A(1)	Change “2b/b” to “2b/-”
31	A2.14.3.3	4A(1)	Change “2b” to “2b/-”
31	A2.16.2	1	Change to read “Composite Tool Kit (CTK) TR: AFI 21-101”

<u>Page</u>	<u>STS Item</u>	<u>Column</u>	<u>Action</u>
32	A2.17.1.1.1	4A(1)	Change “A” to “A/-”
32	A2.17.1.1.2	4A(1)	Change “A” to “A/-“
32	A2.17.2	4A(1)	Change “A” to “A/-“
32	A2.18.1.1	4A(1)	Change “A” to “A/-“
32	A2.18.1.2	4A(1)	Change “A” to “A/-“
32	A2.18.1.3	4A(1)	Change “A” to “A/-“
32	A2.18.1.4	4A(1)	Change “A” to “A/-“
32	A2.18.1.5	4A(1)	Change “2b/b” to “2b/-“
32	A2.18.2.1	4A(1)	Change “A” to “A/-“
32	A2.18.2.2	4A(1)	Change “A” to “A/-“
32	A2.18.2.3	4A(1)	Change “A” to “A/-“
32	A2.18.2.4	4A(1)	Change “A” to “A/-“
32	A2.18.3.1	4A(1)	Change “2b” to “2b/-“
32	A2.18.3.3	4A(1)	Change “2b” to “2b/-“

2. Delete pages 15 and 16. Insert new pages 15, 16, and 16.1. Change 1 is posted on insert pages 15-16.1. Changes on replaced pages are denoted with a star (★).

3. Delete pages 17 and 18. Insert new pages 17 to 18.1. Change 1 is posted on insert page 17. Changes on replaced pages are denoted with a star (★). NOTE: Documentation instructions were changed to align with AFMAN 36-2247. There is NO REQUIREMENT to change documentation on tasks certified/transcribed prior to the effective date of this change (1 Sept 99).

4. Insert page 25.1.

5. After recording changes on MTLs, file this change in the back of the CFETP.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

JOHN W. HANDY, Lieutenant General, USAF  
DCS/Installations and Logistics

Expert on 7-level CDCs. The resource is the 7-level CDCs which are developed by AETC, Keesler AFB, Electronic Warfare Flight.

10.3.3. **Implementation.** Upgrade to the 7-level will require completion of the 7-level CDCs, all AF core tasks, any mandatory exportable courses, 18 months OJT as a SSgt, and completion of the Avionics Advanced Workcenter Management Course, E3ACR2AX7X-000, and the supervisor's recommendation. The 7-level CDC, Air Force core tasks, and 12 months OJT as a SSgt must be completed before attending the resident course. Seven-level resident course elements are met under a Course Training Standard (CTS) E3ACR2AX7X-000. A copy of the CTS and CTS/STS correlation sheet is available by written request to ATTN: Training Manager, 613 Hangar Road Suite 131, Keesler AFB, Ms 39534-2237.

#### 10.4. **Superintendent Level Training:**

10.4.1. **Specialty Qualification.** Manages installing, repairing, maintaining, replacing, and modifying EW and offensive systems, test equipment, and special purpose support equipment. Related DoD Occupational Subgroup: 102.

10.4.1.1. **Knowledge.** Knowledge is mandatory of: theory and application of electronic principles, radios, transistors, solid-state components, and servoamplifiers; working principles of optical lenses; radar search and target identifying factors; interpreting and applying mechanical drawings and wiring diagrams to mechanical functions and electronic circuits; malfunction analysis; using, caring for, and interpreting testing and measuring devices; concepts and application of maintenance directives; Air Force supply, administrative, and safety precautions.

10.4.1.2. **Education.** NCO Academy in residence (ANG/AFRC correspondence). All additional education will be in the form of OJT.

10.4.1.3. **Training.** The Senior NCO Academy and unit OJT will be used for 9-level training.

10.4.1.4. **Experience.** For award of AFSC 2A190, qualification in and possession one of these AFSCs 2A171, 2A172, 2A173, 2A174, or 2A177 is mandatory. Also, experience is mandatory directing functions such as repairing, maintaining, replacing, overhauling, or modifying EW or weapon delivery systems.

10.4.1.5. **Other.** Eligibility for a Secret security clearance according to AFI 31-501 is mandatory for award and retention of AFSC 2A190.

10.4.2. **Training Sources/Resources.** The source of training is the assigned base OJT training section. The other source of training is Senior NCO Academy.

10.4.3. **Implementation.** The 9-level will be awarded after completing MAJCOM requirements, unit OJT, and the Senior NCO Academy. Individuals must be a SMSgt or SMSgt selectee to attend the Senior NCO Academy.

### ***Section D - Resource Constraints***

**11. Purpose.** This section identifies known resource constraints which preclude optimal/desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be, as a minimum, reviewed and updated annually.

#### **12. Apprentice Level Training:**

12.1. **Constraints.** Technical school does not have two A-10 aircraft with appropriate support equipment to perform equipment checkouts and training.

12.1.1. **Impact.** All training objectives cannot be met, therefore increasing the OJT burden on units.

12.1.2. **Resources Required.** The school will need nine additional instructors. Two ECM operable A-10 aircraft, three AN/ALE-47s or ALE-40s (with three ALM-177Bs), three AAR-47s (with three test sets), three AN/ALR-69s, and ALQ-188 (one pod and two hot mock-ups).

12.1.3. **Action Required.** Procure necessary aircraft and equipment to support course training objectives. (OPR: 332 TRS/TTKVT; OCR: HQ ACC/LGM, HQ PACAF/LGM, HQ USAFE/LGM, ANGRC/LGMM)

★12.1.4. **OPR/Target Completion Date.** 332 TRS/TTKVT (Mr. Lance)/1 Feb 98

★12.2. **Constraints.** Soldering can not be taught to the 3c proficiency level.

★12.2.1. **Impact.** All training objectives cannot be met; therefore, the OJT burden on units is increased.

★12.2.2. **Resources Required.** Electronic Principles at Kessler AFB is under a cost comparison study and changes to EP curriculums can not be made until the cost comparison is completed.

★12.2.3. **Action Required.** Adjust Electronic Principles curriculum at conclusion of the cost comparison study. (OPR: 332 TRS/TTKVT).

★12.2.4. **OPR/Target Completion Date.** The 332 TRS will implement the new EW initial skills courses within six months after all required resources are received. (OPR: 332 TRS/TTKVT).

### 13. Five Level Training:

13.1. **Constraints.** CDCs will be rewritten with new and updated material.

13.1.1. **Impact.** All objectives would not be met.

13.1.2. **Resources Required.** N/A

13.1.3. **Action Required.** CDC writers revise/rewrite appropriate sections/books.

13.2. **OPR/Target Completion Date.** 332 TRS/TTKVT/1 Feb 99.

### 14. Seven-Level Training:

14.1. **Constraints.** Develop a new common avionics volume one.

14.1.1. **Impact.** All objectives would not be met.

14.1.2. **Resources Required.** N/A

14.1.3. **Action Required.** CDC writers revise/rewrite appropriate sections/books.

14.2. **OPR/Target Completion Date.** 332 TRS/TTKVT/1 Aug 97

### *Section E. Transitional Training Guide (TTG)*

★15. **EWS-PMEL Transition Training Guide (TTG):** A TTG was outlined for inclusion in CFETP 2A1X7. The purpose of the training plan is to define training requirements to transition the career field to calibrate the test stations. The plan calls for the following:

15.1 The working group developed a transition training guide to assume calibration of the ASE with the PATEC.

15.2. **2A1X7:** Training of current test station personnel to calibrate the test station will be via OJT and the supplemental 5-level course. Qualified 2P0X1 personnel will train 2A1X7

personnel. EWS supervisors will ensure personnel are qualified to assume the workload NLT Jan 00. The 3-level course will have no extension but will introduce the PATEC Theory of Operation and power requirements to "A". An approximate 15 day supplemental course will be developed to calibrate the ASE with the PATEC. Course will be available NLT 1 Jan 00. Currently (as of July 99), equipment is not available for this course to be taught at Keesler AFB. HQ ACC is reviewing options utilizing a Training Detachment.

15.3. **2P0X1:** Any 2P0X1 personnel retraining to 2A1X7 will require initial skills training and normal career progression. There will be no requirement for EP. Seven levels who previously completed the 2P071 7 level course will not need to attend course E3ACR2AX7X-000.

## Part II

### *Section A - Specialty Training Standard*

★1. **Implementation.** This STS will be used for technical training provided by AETC for classes beginning in Jan 99.

2. **Purpose.** As prescribed in AFI 36-2201, this STS:

2.1. Lists in the column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airman to perform duties in the 3-, 5-, and 7-skill level. An asterisk (\*) before the number indicates a wartime course objective.

Column 2 (Core Tasks) identifies, by asterisk (\*), specialty-wide training requirements. Core tasks identified with an \*/R are optional for AFRC and ANG. Certification on all shop/flightline core tasks applicable to at least one Mission Design Series (MDS) aircraft assigned must be completed for skill level upgrade. Only core tasks which are applicable to base assigned aircraft or equipment are required for upgrade (units are not exempt if aircraft/equipment is assigned to another unit on base).

2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. Task certification must show a certification/completed date.

2.3. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. See CADRE/AFSC/CDC listing maintained by the unit training manager for current CDC listings.

2.4. **Qualitative Requirements.** Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.5. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, On-The-Job Training Record, and used according to AFI 36-2201. When used as a JQS, the following requirements apply:

★2.5.1. **Documentation and Certification.** Document and certify completion of training IAW AFMAN 36-2247, Chapter 5. All AFJQSs and previous CFETPs are replaced by this CFETP; therefore, conversion of all training records to this CFETP STS is mandatory. Automated records, utilizing Core Automated Management System (CAMS) or Integrated Maintenance Data System (IMDS), reflecting this STS may be used and are highly encouraged. Use of attachments one and two is mandatory in individual training records; use of attachment three is optional depending upon duty position. Identify duty position requirements by circling the subparagraph number next to the task statement. As a minimum, complete the following columns in Part 2 of the CFETP: Tng Complete, Trainee Initials, Trainer Initials, and Certifier Initials (core tasks only). Trainers may sign off non-core and non-critical tasks by initialing the trainer's column; third party certification is not required for non-core and non-critical tasks. There are no approved AFJQS for this AFSC.

★2.5.1.1. **Converting from Old Document to CFETP.** Transcribe records IAW AFMAN 36-2247. Use this CFETP STS (or automated STS) to identify and certify all past and current qualifications. For those tasks previously certified and required in the current duty position,

evaluate current qualifications and, when verified, recertify using current date as completion date and trainee, trainer, and certifier's initials (core tasks only). For non-core and non-critical tasks only the trainee and trainer's initials are required. For previous certification on tasks not required in the current duty position, carry forward *only* the previous completion date. If and when these tasks become a duty position requirement, recertify using standard certification procedures. Return all old training records and contents to the trainee to retain for historical data.

**2.5.1.2. Documenting Career Knowledge.** When a CDC is not available, the supervisor identifies STS training references that the trainee requires for career knowledge and ensures, as a minimum, that trainees cover the mandatory items in AFI 26-2108. For two-time CDC course exam failures, the supervisor identifies all STS items corresponding to the areas covered by the CDC. The trainee completes a study of STS references, undergoes evaluation by the task certifier, and receives certification on the STS. **NOTE:** Career Knowledge must be documented prior to submitting a CDC waiver.

**2.5.1.3. Decertification and Recertification.** When an airman is found to be unqualified on a task previously certified for their position, the supervisor lines through the previous certification or deletes previous certification when using automated system. Appropriate remarks are entered on the AF Form 623A, **On-The-Job Training Record Continuation Sheet**, as to the reason for decertification. The individual is recertified (if required) either by erasing the old entries and writing in the new or by using correction fluid/tape (if the entries were made in ink) over the previously certified entry.

★**2.5.1.4. AF Form 797.** When additional items not listed in the CFETP Part II are necessary in the current duty assignment, enter them on the AF Form 797. Fill out the form IAW AFMAN 36-2247.

★**2.5.1.5. Disposition of Training Records.** Upon separation, retirement, commissioning, or promotion to Master Sergeant (unless otherwise directed by the AFCFM, MAJCOM, unit commander, or supervisor), give the individual their training records. Also, give individuals outdated training records after transcribing records. Do not remove any training records that show past qualifications unless transcribed to a new CFETP. For example, an individual working in a tool crib or staff position must maintain documented career field qualifications in case they return to direct maintenance duty. Supervisors must exercise good judgment when removing training records not needed in current duty positions.

**2.5.2. Training Standard.** Tasks are trained and qualified to the go/no go level. Go means the individual can perform the task without assistance and meet local demands for accuracy, timeliness, and correct use of procedures.

**2.6.** The STS is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career field. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog. Individual responsibilities are in chapter 14 of AFI 36-2606, *US Air Force Reenlistment, Retention, and NCO Status Programs* (formerly AFR 35-16, volume 1). WAPS is not applicable to the Air National Guard or Air Force Reserve.



**3. Recommendations.** Report unsatisfactory performance of individual course graduates to 332 TRS/TTKVT, 817 Hercules St. Ste 101, Keesler AFB, MS 39534-2034, DSN: voice 597-4413, FAX 597-1698. Reference specific STS paragraphs.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

JOHN W. HANDY, Lieutenant General, USAF  
DCS/Installations and Logistics

3 Attachments

1. Proficiency Code Key
2. Knowledge and Performance Requirements for 2A1X7
3. Electronic Fundamentals Applications

TASKS, KNOWLEDGE, AND TECHNICAL REFERENCES	2. CORE TASKS		3. Certification for OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (see Note)					
			A	B	C	D	E	A 3 Skill Level		B 5 Skill Level		C 7 Skill Level	
	5	7	Tng Start	Tng Comp	Trainee Initials	Trainer Initials	Certifier Initials	(1) Course	(2) CDC	(1) Course	(2) CDC	(1) Course	(2) CDC
A2.10.5 Portable Automated Test Equipment Calibrator (PATEC)													
A2.10.5.1 Theory and Operation (Note 1)								A	-	-	B	-	-
A2.10.5.2 Traceability of Standards TR: 00-20-14								-	-	-	B	-	-
A2.10.5.3 Calibration Documentation TR: 00-20-10								-	-	-	B	-	-
A2.10.5.4 Uninterrupted Power Requirements (Note 1)								A	-	-	B	-	-
A2.10.5.5 Verify Calibration of AN/ALM-233 Automated Support Equipment (ASE)								-	-	-	-	-	-